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# When Coal Was King

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**Rochester Institute of Technology**

A Thesis Submitted to the Faculty of  
The College of Imaging Arts and Sciences  
School for American Crafts  
In Candidacy for the Degree of  
Master of Fine Arts in Metal and Jewelry Design

*When Coal Was King*

By: Rachele Trzcinski

*October 1, 2015*

## Proposal:

Growing up in Scranton, a small, rural area of Northeastern Pennsylvania, has influenced my work ethic and art. As an artist, I intend to create a series of paintings and steel structures that tell the story of Scranton's past. In a community of blue-collar factory workers, living does not always come easy as social mobility is limited and opportunities are few. Surviving overshadows thriving, and my work highlights the raw, gritty imperfections of those circumstances. In the purposely coarse aesthetic of my welding I want the viewer to see every blow of the hammer. The viewer should feel compelled to look close and touch each piece of work. Instead of glossing over Scranton's problems of the past and present, I want to bring them to the forefront. My work endeavors to help audiences remember their history, honor their past, and to prevent these decades of deterioration and neglect from happening again.

There are many cities, like Scranton that exploded with progress during the Industrial Revolution, helping to build the United States using their factories to process natural resources at the turn of the 20<sup>th</sup> century. Scranton was the hub of coal mining in the late 1800's and early 1900's. Scranton's story is very personal to me as my family has had generations of coal miners. To make ends meet in poorer families, boys as young as five began working the coal breaker. After losing its primary industry, a once thriving Scranton lost the jobs that came with it. The surrounding area and environment were also affected by the loss of the coal mining industry and economic opportunities that it granted. This industry does not exist anymore. Mineshaft floods are a common occurrence. The old breaker buildings only exist in memory and photographs. Mine fires are still a very real threat. Cities such as Scranton deserve to be resurrected and have their stories told.

## Abstract:

My work is my research. Thinking and learning are a part of my process. The lessons and challenges in one project are merely stepping stones for the next. My body of work becomes a long series that shows a connection between each piece, slowly growing and exploring. My ideas stem from my immediate surroundings. I am a reporter and my artwork is my article.

I have been researching the coal mining and other related industries of Scranton, Pennsylvania and its surrounding areas. An area that helped build the industrial revolution in Americas early years, only to be neglected once the country did not need it anymore. A forgotten city, left in ruins, a shadow of its former self. I aim to bring attention to it to this abandoned area. This is a universal condition that could reference many smaller cities and towns across the nation. There is a core population that still exists in Northeast Pennsylvania, that goes back generations; families that will never leave and take pride in their roots. They choose to stay in an area that is decaying, without helping to stop it. I am interested in those people and their choices.



Imagine waking up between four and five o'clock in the morning. You are lying in bed, in your four-room, half of a house. Your wife is awake and making breakfast and lunches. Your kids are asleep at the end of the bed. The early morning light is just beginning to creep over the mountains outside of the window. You put on your work clothes from the day before and eat breakfast. You gather your sons, kiss your wife, and begin the walk to work. You do not own a car, because automobiles are a luxury. It is a long, snowy walk in the winter as you head to the mine. Your wife bundles up your sons, the best she can, but you pull your six year old closer to you to keep him warm. You see your fellow workmen and sons walking to the mine. You notice the teenager from down the street walking by himself, two days prior, his father died in a mine collapse. You get to the mine and leave your youngest son at the breaker, to sort coal. You give him a bit of chewing tobacco, believing it will keep the coal dust out of his young lungs. It is your eight year old's first day down in the mines. He is a nipper, sitting by himself, alone in the dark air passages, opening and closing the doors for the mules and coal carts. Your oldest son, who is fourteen, is a driver. He and his mule are in charge of up to three carts now. A few months prior, your oldest, lost two fingers, in one of the wheels of the coal carts, but he is fine now.

You and your sons get into the cart at the opening of the mine. The sign at the front of the cart has a warning to keep all hands, feet, and heads in the cart while in motion, in several different languages. There is a click and the cart lurches. You watch as the light at the opening of the shaft slowly becomes smaller, before it all goes black. All you can hear is the breathing of the other men, the clicking of the cart, and the dripping of water coming down the sides of the shaft. The darkness lays heavy on your eyes. You say a silent prayer because working this close to hell you will probably need it.

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I was born and grew up Scranton, Pennsylvania. This city and Northeast Pennsylvania as a whole were a large coal mining area. In the late 1700s anthracite coal was discovered in Wilkes Barre, Pennsylvania and then in the early 1800s the first mining operation was opened in Carbondale, Pennsylvania.<sup>12</sup>

Anthracite coal is one of the two main different types of coal, the other being bituminous coal. Anthracite coal is the harder and rarer of the two coals. Anthracite coal is made up of 85- 92% carbon; therefore it burns cleaner and hotter than other coals.<sup>34</sup> Northeast Pennsylvania has the largest deposit of anthracite coal in the world. Coal is formed over hundreds of millions of years in the Earth's crust. Millions years ago a large deposit of living things died in Northeast Pennsylvania and was buried underneath layers of soil and rock and with millions of years of heat and pressure, coal was formed.

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<sup>1</sup> J. S. Richards, *Early Coal Mining in the Anthracite Region* (Arcadia Publishing, 2002), [https://books.google.com/books?id=kmT08cHnJ\\_wC](https://books.google.com/books?id=kmT08cHnJ_wC).

<sup>2</sup> F. L. Hitchcock, *History of Scranton and Its People* (Lewis Historical Publishing Company, 1914), <https://books.google.com/books?id=iJ9DAQAAMAAJ>.

<sup>3</sup> "Coal: Anthracite, Bituminous, Coke, Pictures, Formation, Uses," <http://geology.com/rocks/coal.shtml>.

<sup>4</sup> "District 1 History," [http://www.msha.gov/District/Dist\\_01/History/history.htm](http://www.msha.gov/District/Dist_01/History/history.htm).

Coal is used as a power source, mainly used in heating residential homes.<sup>5</sup> It proved to be a very valuable resource throughout the industrial revolution in America. With birth of the Railroad industry, coal was able to be shipped across the United States to fuel the growing country.<sup>6</sup> Then coal began to fall out of favor as a fuel source in the early 1930s. Its production and use gradually decreased in favor of natural gas which was cleaner burning, and more easily processed. Despite its drawbacks, coal proved to be a powerful workhorse of Northeastern Pennsylvania throughout this time as the local economies continued to thrive. When coal stopped being used, the workhorse, the jobs, the economy that was in Northeastern Pennsylvania was gone.<sup>7</sup>

Although Scranton, Pennsylvania has been the epicenter of my study, my research includes a much broader area than that. Scranton was born from the iron furnaces and grew with the coalmines.<sup>8</sup> The population of Scranton plummeted from 137,900 at the peak of the coal mining industry in 1920 to 70,000 today.<sup>10</sup> All those jobs have come and gone, and Scranton has been in a decline ever since, to the extent that Scranton has been at the point of bankruptcy the last few years.

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<sup>5</sup> "Coal: Anthracite, Bituminous, Coke, Pictures, Formation, Uses."

<sup>6</sup> "Scranton and the Railroad Essay -- National Register of Historic Places Delaware and Lehigh National Heritage Corridor Travel Itinerary," accessed May 29, 2015, [http://www.nps.gov/nr/travel/delaware/scranton\\_rr.htm](http://www.nps.gov/nr/travel/delaware/scranton_rr.htm).

<sup>7</sup> T. Keil and J. M. Keil, *Anthracite's Demise and the Post-Coal Economy of Northeastern Pennsylvania* (Lehigh University Press, 2014), <https://books.google.com/books?id=UTmsBgAAQBAJ>.

<sup>8</sup> Hitchcock, *History of Scranton and Its People*.

<sup>9</sup> Keil and Keil, *Anthracite's Demise and the Post-Coal Economy of Northeastern Pennsylvania*.

<sup>10</sup> "Scranton and the Railroad Essay -- National Register of Historic Places Delaware and Lehigh National Heritage Corridor Travel Itinerary."

To make an industry and a city there needs to be people. Many people from Scranton and the surrounding former coal towns are ashamed to say they are from Scranton. They look down upon the area of Northeastern Pennsylvania. Scranton was once a beautiful city in the mountains, with large Neo-Gothic architecture, most of which has been boarded up. The Scranton Lace Factory, which from 1916 to 2002 was America's largest producer of Nottingham lace, shut its doors mid-shift on a Friday in 2002.<sup>11</sup> A factory that took up an entire city block has been left to decay. Scranton does not have an incoming population.

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The cart comes to a halt, and everyone clambers out. You and your laborer make your way to your section of the mine. You need six cartloads of coal to get a full day's pay. You and your laborer drill holes into the rock wall. In a precise order, you fill the holes with dynamite and their charges. Once your wall is set, you and your laborer set off the charges and run a corner. There is a pause where all you can hear is the sound of pickaxes against rock in the distance. Then... boom!, You count the charges off in your head. Boom... two... boom... three... boom... four. The charges go off one by one until. Boom... eight... boom... nine...silence. You hold your breath at the unexpected pause, then boom... ten. You say another prayer; thanking good you did not have to check for a misfired charge. You and your laborer begin to fill up a cart with some of the broken off chunks of coal. You grab your pickaxe and start taking out chunks of coal in the newly exposed vein.

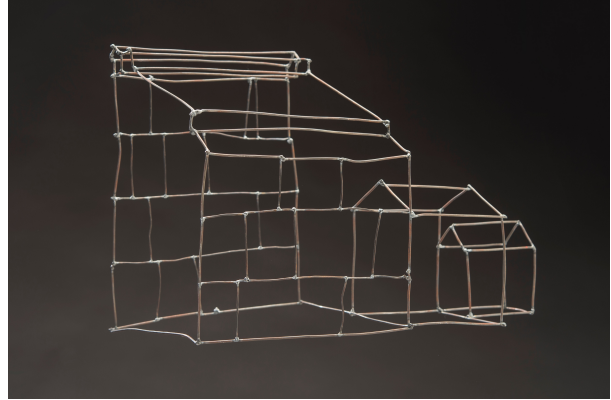
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<sup>11</sup> "Scranton Lace Company," *Wikipedia, the Free Encyclopedia*, September 8, 2014, [http://en.wikipedia.org/w/index.php?title=Scranton\\_Lace\\_Company&oldid=624677770](http://en.wikipedia.org/w/index.php?title=Scranton_Lace_Company&oldid=624677770).

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*Miner's House* 2014



*Coal Breaker* 2014

“Coal Breaker” and “Miner’s House” were my initial models. I have many drawings and small paintings as preliminary ideas, but they do not start taking form until I start making them in wire. For my process, working with steel wire is a sort of three-dimensional drawing. It is a fast way for me to work out dimensions and details. My wire models are the middle step in the progression of my artwork.

The next steps of the wire models are best illustrated in “Sinking” and “Falling Apart”. These two sculptures are less about the past mining industry and more about the current landscape of Scranton. The former stateliness of Scranton is deteriorating. The grand buildings are boarded up, businesses are leaving for overseas labors. Scranton has been left in a state of disrepair and finding concrete solutions has been elusive.



*Sinking* 2014



*Falling Apart* 2014





*The Breaker* 2015

The large piece in my thesis exhibition, titled "The Breaker" is the breaker building, measuring nine feet tall. This is the building where they sorted the coal.<sup>12</sup> It was the largest building within miles. In terms of scale, a coal miner's house would be roughly a foot tall standing next to this building. These were huge powerful buildings that dominated the landscape. Dozens of them were once scattered around Northeastern Pennsylvania. There is now only half of one remaining in Northeastern/ Central Pennsylvania, which is in the process of

being ripped down.<sup>13</sup> The precariousness of this piece, the rickety construction, represents the fragility of life in the mines. The melted plastic brings to mind the idea of melted skin from the fires that happened underground, the unfortunate lives lost in them. The bright oranges and reds are metaphors for fire. These buildings were made of

<sup>12</sup> "MSHA - District 1 - Coal Mine Safety and Health - Old Coal Breakers in the Anthracite Region of Pennsylvania," accessed May 29, 2015, [http://www.msha.gov/District/Dist\\_01/History/breakers.htm](http://www.msha.gov/District/Dist_01/History/breakers.htm).

<sup>13</sup> "Historic Coal Breaker Being Torn Down?," *WNEP 16*, September 23, 2013, <http://wnep.com/2013/09/23/historic-coal-breaker-being-torn-down/>; "St. Nick Breaker," accessed May 29, 2015, <http://www.undergroundminers.com/mahanoy.html>; "Beyond NYC: The St. Nicholas Coal Breaker | AbandonedNYC," accessed May 29, 2015, <http://abandonednyc.com/2014/04/16/beyond-nyc-the-st-nicholas-coal-breaker/>.

wood and covered in coal dust. A spark could set it up in flames.<sup>14</sup> This structure is meant to dominate the room, like the breaker buildings dominated the coal villages.



*The Story of Coal Miners* 2014

“The Story of Coal Miners”, the central painting in my thesis exhibition, tells the story of daily life for the miners. The gradation from black to red represents the descent into the mines. The red also symbolizes the heat and dangers of Hell. Miners were superstitious, sticking to the same routines everyday, because if you worked so close to hell on a daily basis, why risk it?<sup>15</sup>

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<sup>14</sup> J. MacGaffey, *Coal Dust on Your Feet: The Rise, Decline, and Restoration of an Anthracite Mining Town* (Bucknell University Press, 2013), <https://books.google.com/books?id=dRWyAAAAQBAJ>.

<sup>15</sup> S. C. Bartoletti, *Growing Up in Coal Country* (Houghton Mifflin Company, 1996), <https://books.google.com/books?id=kWOJbnga-F8C>.

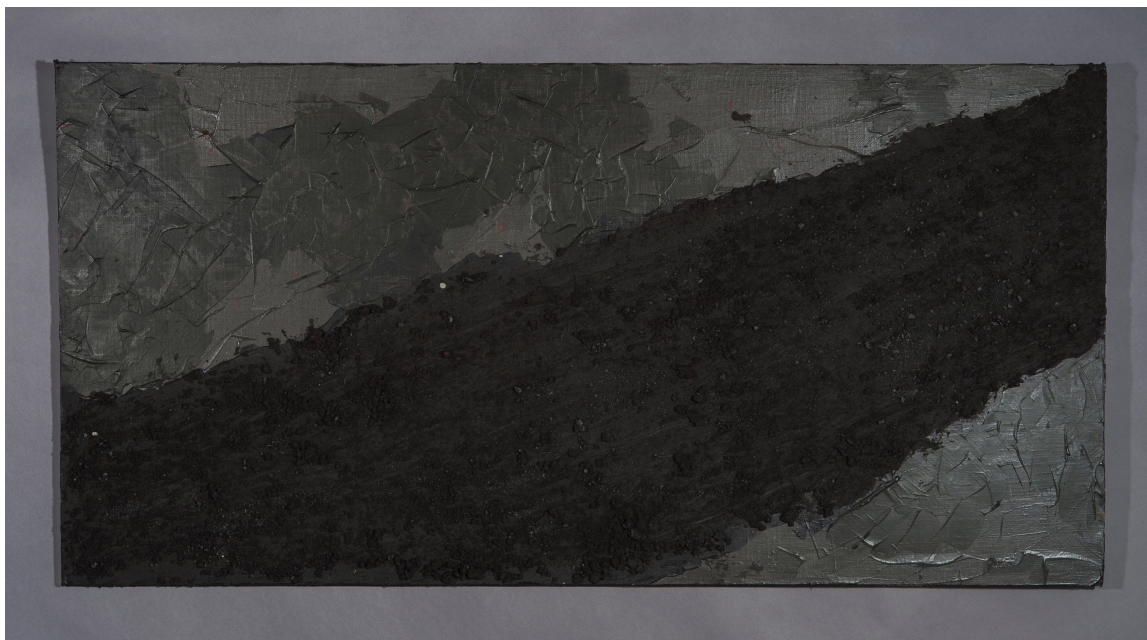




*Carbondale 2014*

My paternal grandfather and my maternal great grandfather were miners. The painting "Carbondale" is about my great grandfather James. He used to work in water up to his waist in the mines due to the disruption of the water-table, a byproduct of mining. He died of emphysema and suffered from severe arthritis from working in the mines in the water. James was confined to a

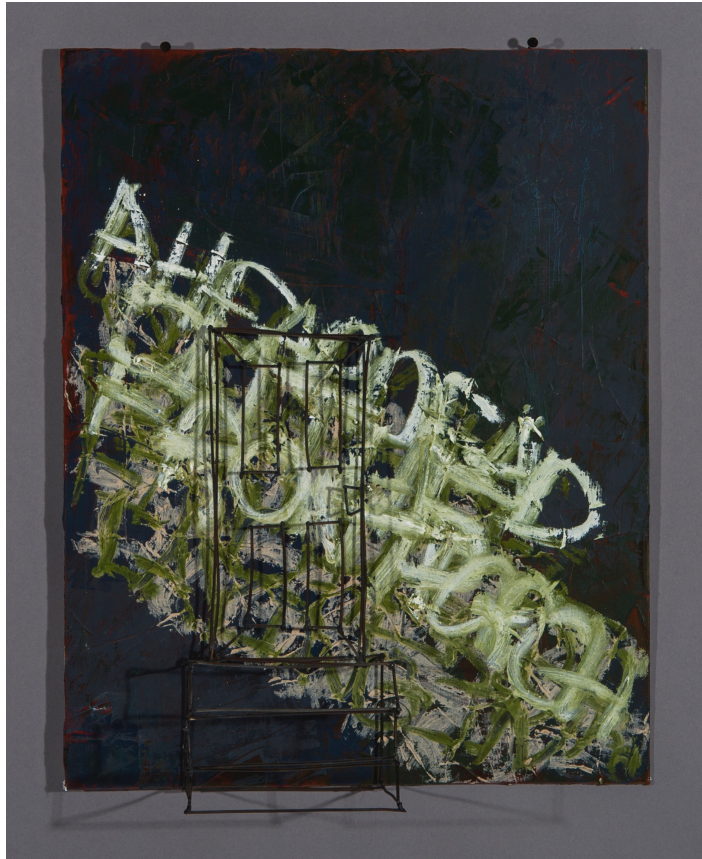
wheelchair the last few years of his life. When the miners switched from oil lamps to battery operated lamps for their head lamps, my grandfather had the battery pack break open and he had acid burns down his back. Due to demands at the time he could not do



*Monkey Vein 2014*

anything about it because he had to keep working.

The painting “Monkey Vein” is the visual of a type of vein you would find in the mines. A monkey vein is only twelve inches to twenty inches high. The miner would have to crawl in on their hands and knees to mine out the coal. These are only a couple of the heinous situations that miners had to work in.



*Front Porch* 2015

The writings on my paintings are stories I heard from multiple people who lived during the time when mining was still somewhat prevalent, when it still provided jobs. “Front Porch” is the story from a coal mine tour guide, of when his grandmother was a little girl. She opened up the front door to find her father, who was a miner, dead on the front porch. The owners of the coal mine just left his body there.

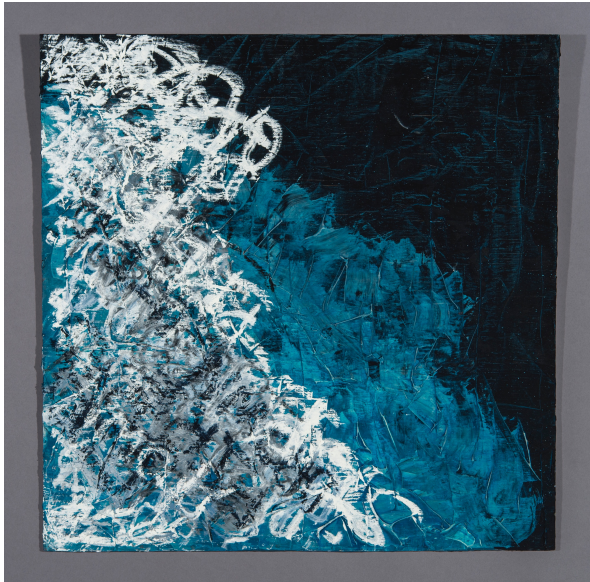
“Miner’s Fate” lists many of the ways miners’ could potentially be injured or killed, scribbled onto the surface.<sup>16</sup> “Coal King’s Slave” and “Gone Underground for Good” are epitaphs from miners’ tombstones, a constant reminder that not even death could separate

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<sup>16</sup> J. S. Richards, *Death in the Mines: Disasters and Rescues in the Anthracite Coal Fields of Pennsylvania* (History Press, 2007), <https://books.google.com/books?id=D3YVBAAAQBAJ>.



us from our past.<sup>17</sup> In my experiences speaking about coal with people, who were not from Scranton, that most people had no idea what coal looks like. It was important to me to include anthracite coal into “The Breaker” and the painting “Burn”.



*Miner's Fate* 2014



*Coal King's Slave* 2014



*Gone Underground for Good* 2014



*Burn* 2014

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<sup>17</sup> Bartoletti, *Growing Up in Coal Country*.

We are still facing the issues of the coal mining industry today. The painting “Culm Bank” is a representation of the actual culm banks or dumps found in Northeastern Pennsylvania. Culm dumps are piles of slate and unusable coal, basically the waste from the coal mines and breakers. These dumps still dot the landscape today. Mine fires are still a huge problem. If someone throws the end of a cigarette into an old mine shaft, that can start a fire, and there is enough fuel there to burn for 100 years. And it costs the area millions of dollars and months to subdue the fire, not extinguish it.<sup>18</sup> Then there is the methane gas that that is released from burning coal. The town of Centralia, Pennsylvania has been on fire



*Culm Bank* 2014

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<sup>18</sup> Pennsylvania Inspector of Mines, *Reports of the Inspector of Coal Mines of the Anthracite Coal Regions of Pennsylvania*, 1920, <https://books.google.com/books?id=6Tc5AQAAMAAJ>; Glenn B. Stracher, “The Anthracite Smokers of Eastern Pennsylvania: P<sub>2</sub>-T Stability Diagram by TL Analysis,” *Mathematical Geology* 27, no. 4 (May 1, 1995): 499–511, doi: 10.1007/BF02084424; C. Kuenzer et al., “Detecting Unknown Coal Fires: Synergy of Automated Coal Fire Risk Area Delineation and Improved Thermal Anomaly Extraction,” *International Journal of Remote Sensing* 28, no. 20 (September 20, 2007): 4561–85, doi: 10.1080/01431160701250432.

since 1962, it has since been evacuated because of the methane build up underground that has broke through the surface, making the air unsafe for its residents. No one is allowed to live there and it is completely blocked off. You can see the methane gas coming up through the cracks in the road.<sup>19</sup>

This is a body of work that has possibility of continuing. I have received such strong, emotional responses, from family, friends, and strangers alike, that make it evident that these are issues that still need to be dealt with. As an artist, I want to create meaningful, work. I also want it to be accessible. Scranton is a blue-collar city, and the people of Scranton have not adjusted well to the post-modern world. There has never been a need for me to create high intellectual ideals in my art. I aim to touch on something that is much more primal, much more human. In the grand scheme of things, there are many more non-artists than artists, so if we only aim for the smaller of the two groups, we have failed to create any impact with our art. Many times some artists lose touch with the lives of people who are not like them. As an artist, I cannot do that. If the people, that my artwork is about, does not emotionally connect; then I have failed. I am telling the story of many cities, through the eyes of Scranton.

Sadly, this is not a unique story to Scranton and its people. This is a story that has been lived a thousand times over. It has just taken place, in a different country, a different

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<sup>19</sup> Melissa A Nolter and Daniel H Vice, "Looking Back at the Centralia Coal Fire: a Synopsis of Its Present Status," *Coal Fires Burning Around the World: a Global Catastrophe* 59, no. 1–2 (July 12, 2004): 99–106, doi:10.1016/j.coal.2003.12.008.

industry, or a different era.<sup>20</sup> Still we continue on in the name of growth without looking back at what we have already lost. Although this is a universal story, it is a very personal story to me. Scranton is coming up on its 150<sup>th</sup> birthday this year. I am trying to resurrect those stories and tell a new generation, a new audience, about the importance of their heritage

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Twelve hours later, it is finally the end of the workday. You grab your lunch pail and make your way to the mine car. You find your two sons that were down in the mine, and huddle together in the car. Your eight year old sits on your lap, and you put your arm around your fourteen year old. The car makes the familiar lurch forward as you begin your ascent to the surface. Eventually you begin to see the dot of light from the shaft opening. Slowly but surely it becomes larger. Finally you are able to breathe deeply and fill your lungs with fresh air. You gather your youngest son, who was playing with the other breaker boys while waiting for you, and you begin your walk home. You make a short stop at your favorite corner pub (there is a pub or two on every street) for a beer. Your sons chose to continue on home without you. You chat idly with other miners as you celebrate making it another day to the surface. Finally you get up from the bar, to begin your final leg home. When you get home you see your sons have already bathed, and your wife, is getting the water ready for you in the metal basin in the kitchen. You enjoy your final moments of the

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<sup>20</sup> X. Zhang, *Coal Fires in Northwest China – Detection, Monitoring, and Prediction Using Remote Sensing Data.*, ed. null, vol. null, Null, 1998; P. Gangopadhyay, *Coalfire Detection and Monitoring in Wuda, North China – A Multi-spectral and Multi-sensor TIR Approach.*, ed. null, vol. null, Null, 2003; J. L. Van Genderen and H. Guan, *Environmental Monitoring of Spontaneous Combustion in the North China Coalfields.*, ed. null, vol. null, Null, 1997.

night with your family. As you lay your head down for bed, you say another silent prayer to God, because in a few short hours, you have to do it all over again.



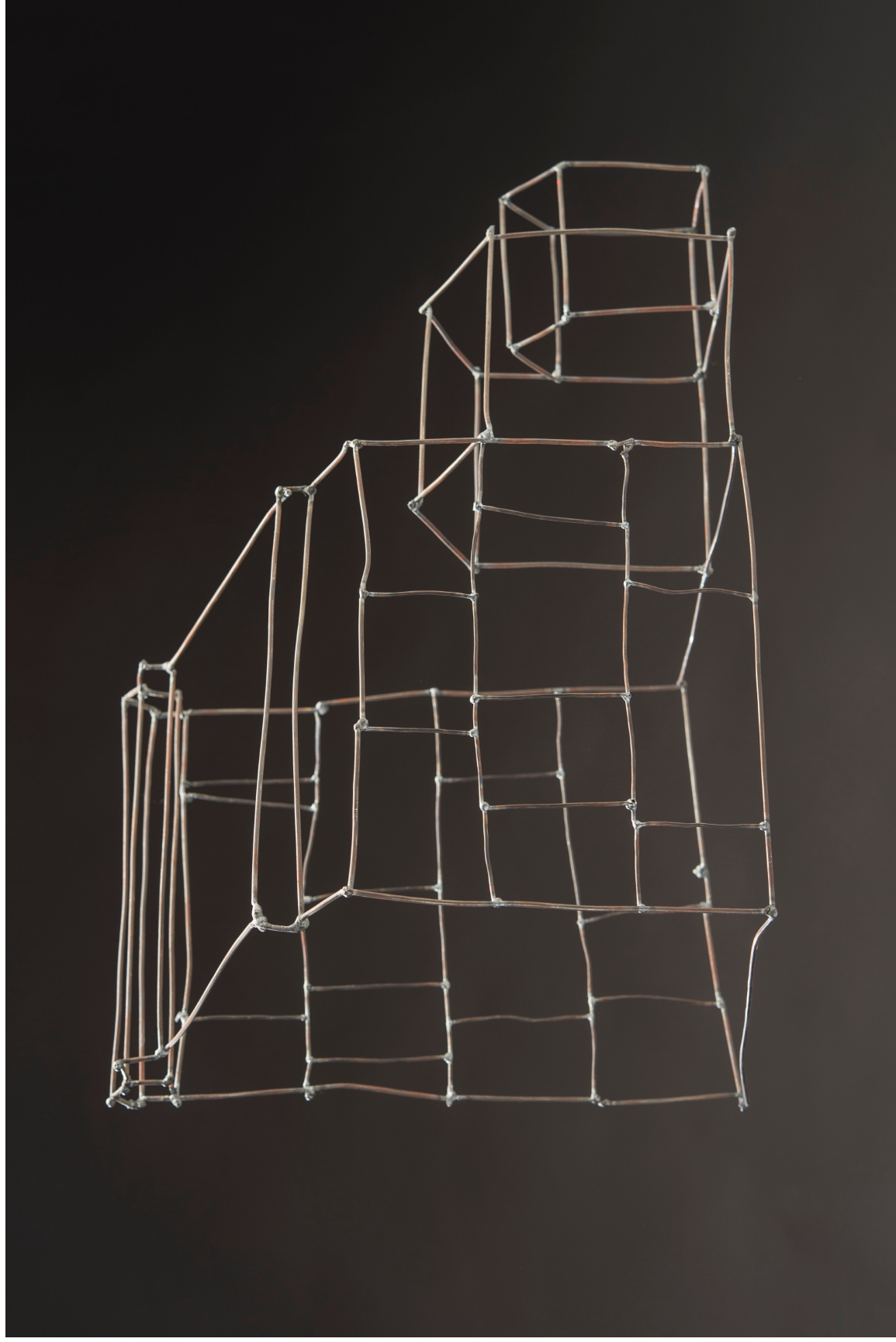
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**Title of Work: Burn**  
**Media: Acrylic, Anthracite Coal**  
**Dimensions: 24 inches by 24 inches**



**Title of Work: Coal Breaker      Media: Steel wire**  
**Dimensions: 15 inches by 10 inches by 8 inches**





**Title of Work: Coal King's Slave**

**Media: Acrylic**

**Dimensions: 24 inches by 18 inches**





**Title of Work: Carbondale**

**Media: Acrylic**

**Dimensions: 24 inches by 24 inches**





**Title of Work:** Culm Bank      **Media:** Acrylic, Anthracite Coal, Coke (Burned Coal)  
**Dimensions:** 48 inches by 36 inches

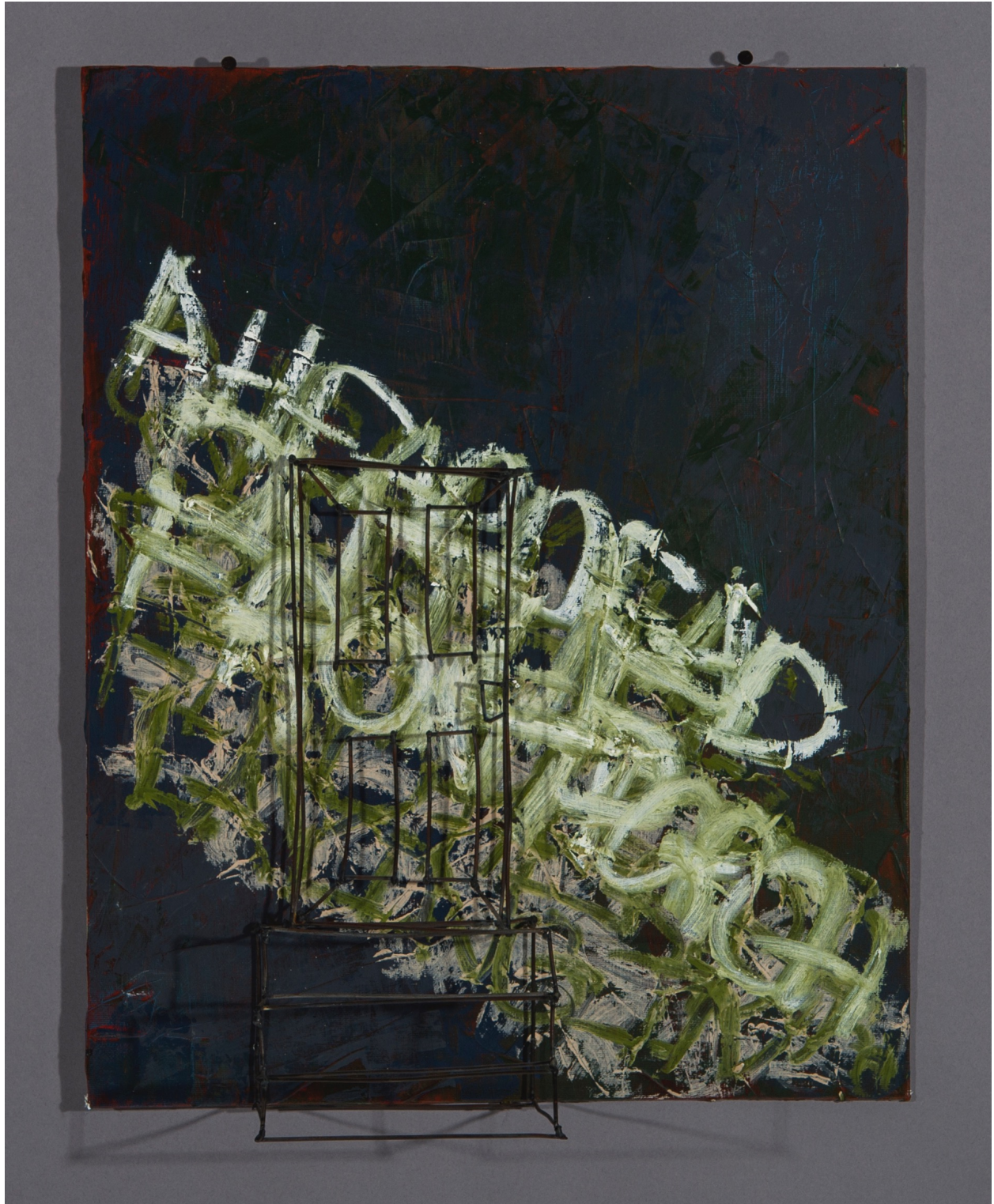


**Title of Work: Falling Apart**

**Media: Steel, Concrete blocks, Acrylic**

**Dimensions: 24 inches by 24 inches foot print, 43 inches high**





**Title of Work: Front Porch**

**Media: Acrylic, Oil stick, Steel wire**

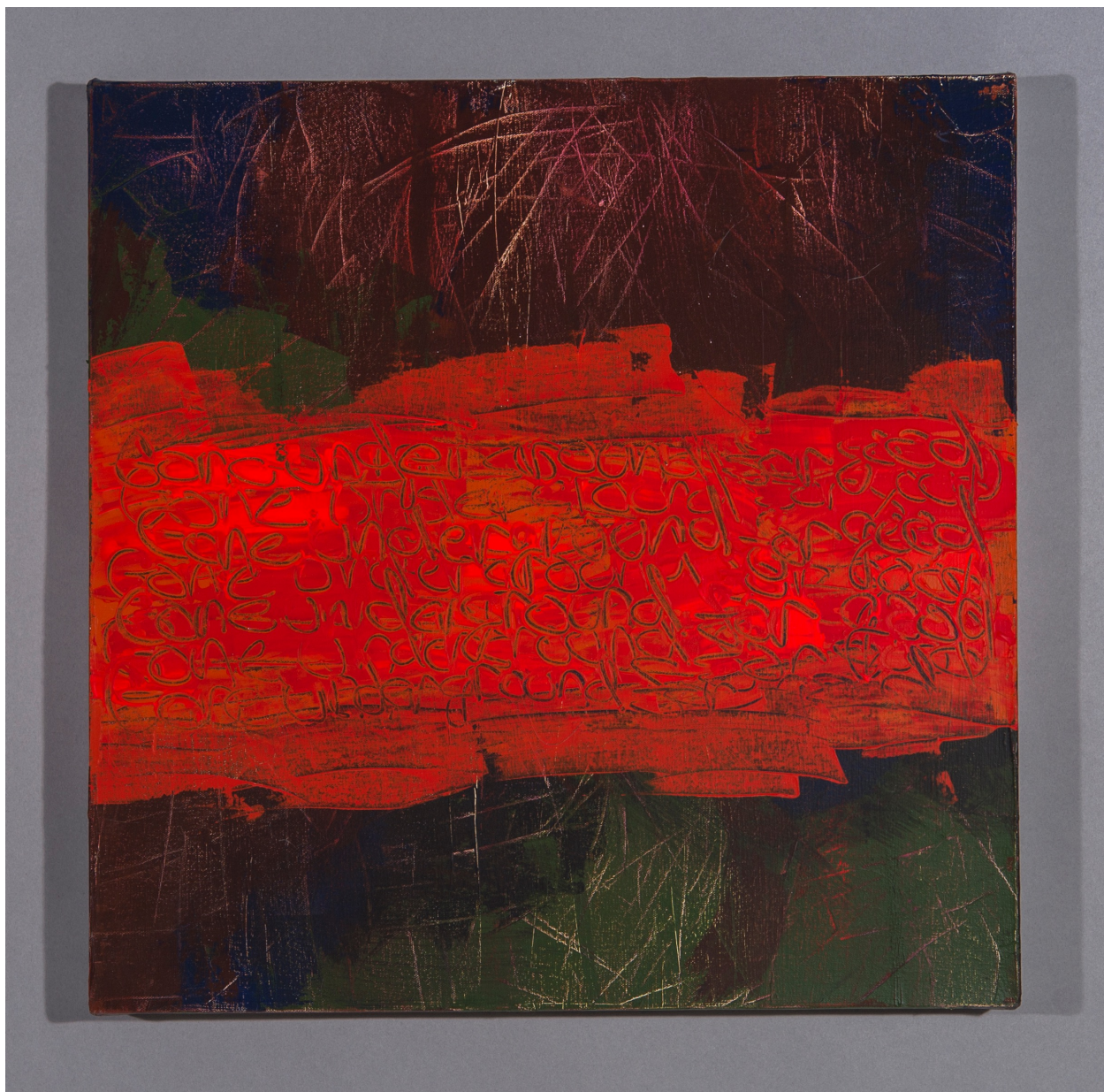
**Dimensions: 16 inches by 20 inches by 6 inches**





**Title of Work: Front Porch (Detail)**  
**Media: Acrylic, Oil stick, Steel wire**  
**Dimensions: 16 inches by 20 inches by 6 inches**





**Title of Work: Gone Underground for Good**

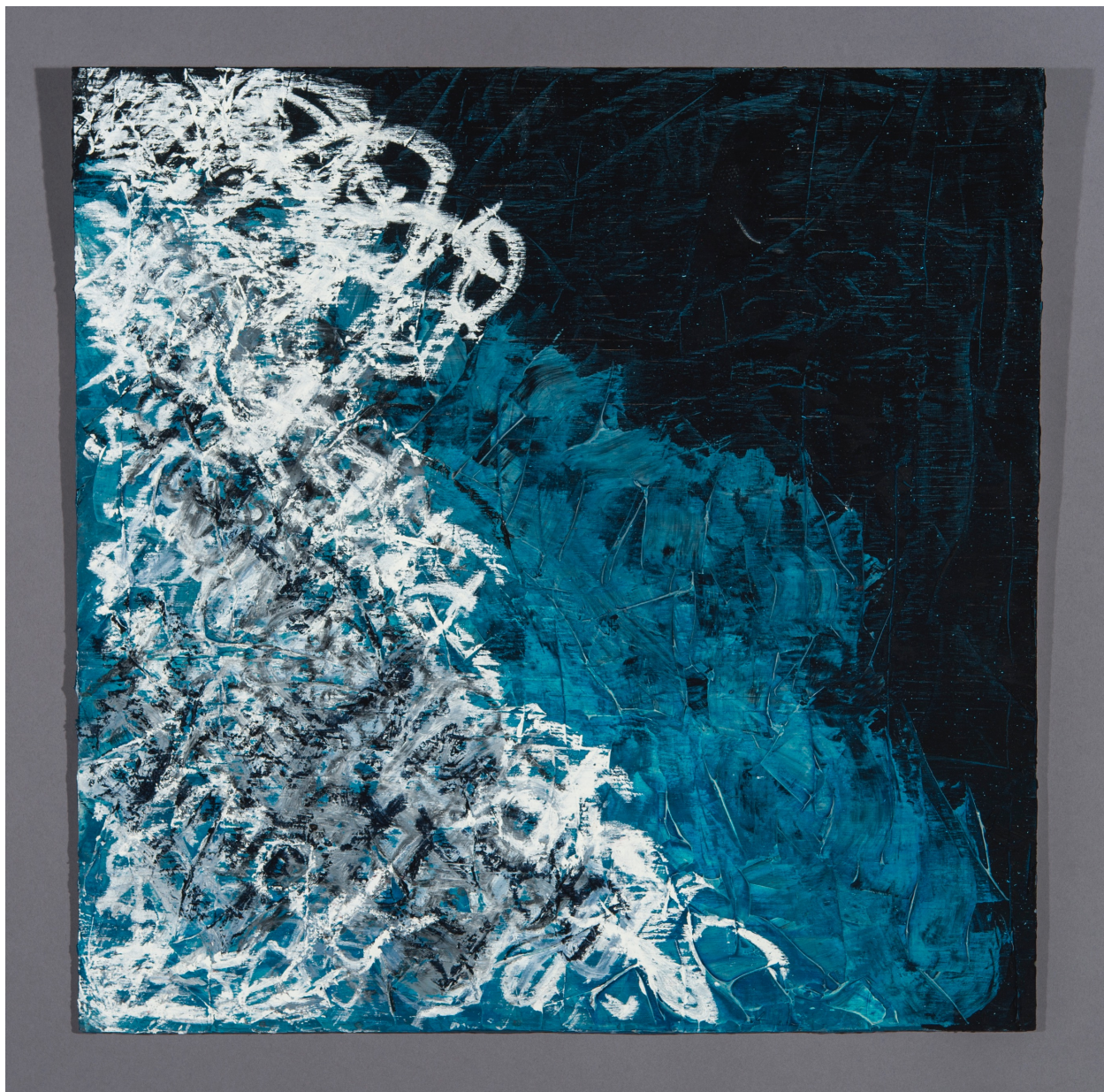
**Media: Acrylic**

**Dimensions: 20 inches by 20 inches**



**Title of Work: Miner's House      Media: Steel Wire**  
**Dimensions: 6 inches by 5 ½ inches by 3 ½ inches**





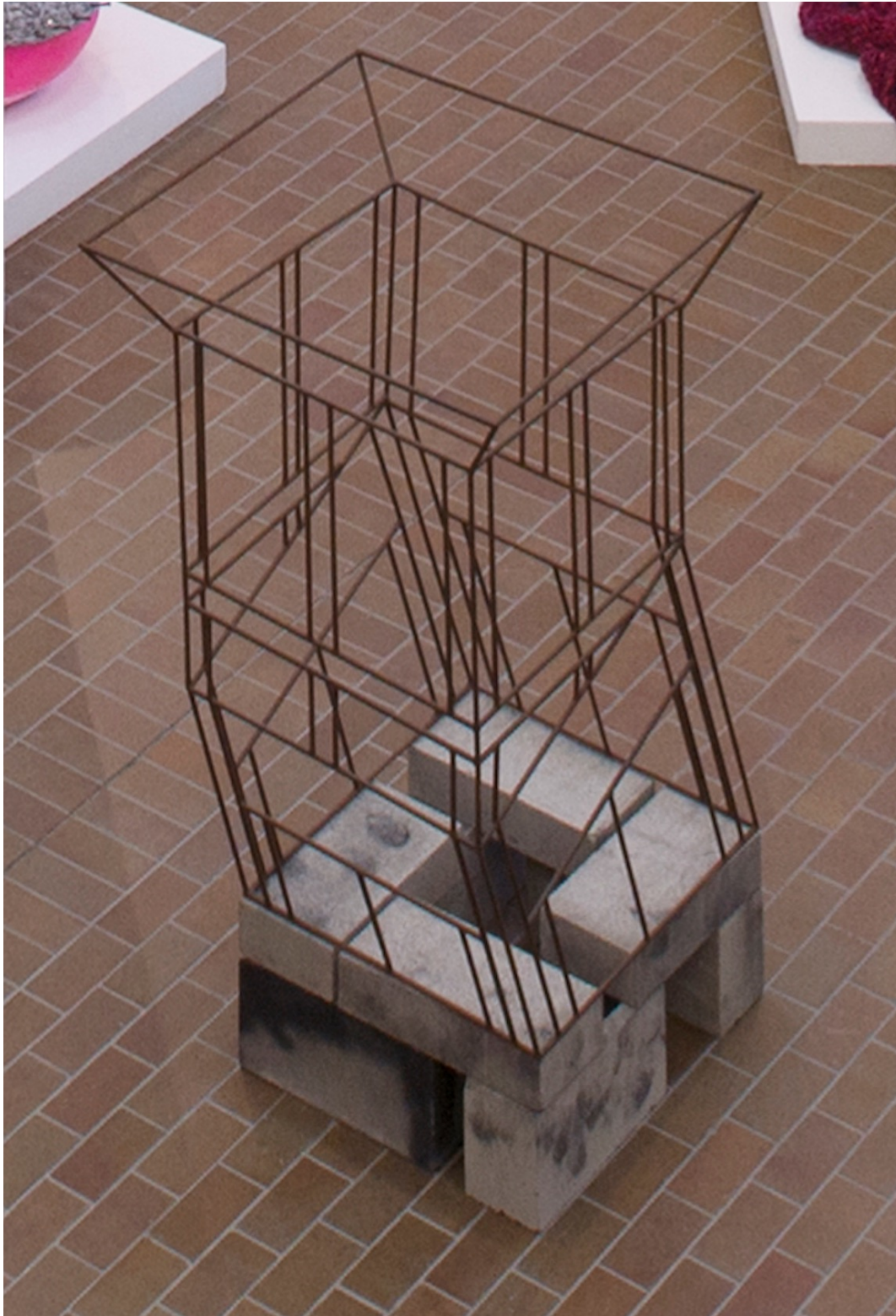
**Title of Work: Miner's Fate**  
**Media: Acrylic, Oil sticks**  
**Dimensions: 24 inches by 24 inches**





**Title of Work: Monkey Vein**  
**Media: Acrylic, Coke (Burned coal)**  
**Dimensions: 48 inches by 24 inches**





**Title of Work: Sinking**

**Media: Steel, Concrete blocks, Acrylic**

**Dimensions: 24 inch by 28 inch footprint, 48 inches high**





**Title of Work: The Story of Coal Miners**

**Media: Acrylic, Oil stick**

**Dimensions: 42 inches by 60 inches**





**Title of Work: The Breaker**

**Media: Steel, Acrylic, Industrial plastic wrap, Anthracite coal**

**Dimensions: 113 inches long by 110 inches high by 61 inches wide**





**Title of Work: The Breaker**

**Media: Steel, Acrylic, Industrial plastic wrap, Anthracite coal**

**Dimensions: 113 inches long by 110 inches high by 61 inches wide**

## List of Artwork:

1. Title of Work: Burn

Media: Acrylic, Anthracite Coal

Dimensions: 24 inches by 24 inches

2. Title of Work: Carbondale

Media: Acrylic

Dimensions: 24 inches by 24 inches

3. Title of Work: Coal Breaker

Media: Steel wire

Dimensions: 15 inches by 10 inches by 8 inches

4. Title of Work: Coal King's Slave

Media: Acrylic

Dimensions: 24 inches by 18 inches

5. Title of Work: Culm Bank

Media: Acrylic, Anthracite Coal, Coke (Burned Coal)

Dimensions: 48 inches by 36 inches

6. Title of Work: Falling Apart

Media: Steel, Concrete blocks, Acrylic

Dimensions: 24 inches by 24 inches foot print, 43 inches high

7. Title of Work: Front Porch

Media: Acrylic, Oil stick, Steel wire

Dimensions: 16 inches by 20 inches by 6 inches

8. Title of Work: Gone Underground for Good

Media: Acrylic

Dimensions: 20 inches by 20 inches

9. Title of Work: Miner's Fate

Media: Acrylic, Oil sticks

Dimensions: 24 inches by 24 inches

10. Title of Work: Miner's House

Media: Steel Wire

Dimensions: 6 inches by 5 ½ inches by 3 ½ inches

11. Title of Work: Monkey Vein

Media: Acrylic, Coke (Burned coal)

Dimensions: 48 inches by 24 inches

12. Title of Work: Sinking

Media: Steel, Concrete blocks, Acrylic

Dimensions: 24 inch by 28 inch footprint, 48 inches high

13. Title of Work: The Story of Coal Miners

Media: Acrylic, Oil stick

Dimensions: 42 inches by 60 inches

14. Title of Work: The Breaker

Media: Steel, Acrylic, Industrial plastic wrap, Anthracite coal

Dimensions: 113 inches long by 110 inches high by 61 inches wide

**Thesis Title:** When Coal Was King

**Student Name:** Rachele Trzcinski

## Thesis Committee Final Approvals

**Chief Advisor:** Leonard Urso

_____	_____
Print name	Signature

Date: \_\_\_\_\_

**Associate Advisor:** Juan Carlos Caballero-Perez

_____	_____
Print name	Signature

Date: \_\_\_\_\_

**Associate Advisor:** Elizabeth Kronfield

_____	_____
Print name	Signature

Date: \_\_\_\_\_

**Chairperson:** Juan Carlos Caballero-Perez

_____	_____
Print name	Signature

Date: \_\_\_\_\_